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Largest ever randomised trial in neonatal surgery

Prof Agostino Pierro and Dr Simon Eaton, together with a number of ICH and GOS colleagues, are about to embark on the largest ever randomised controlled trial in neonatal surgery. The 'Surgical infants glutamine nutrition trial' (SIGN trial) will assess the effect of glutamine supplementation in parenteral nutrition on the outcome for newborn infants who have undergone intestinal surgery. The study – which will involve all the major children's hospitals in the UK and Ireland – is funded by Action Research, the British Association of Paediatric Surgeons, the Royal College of Surgeons of England and by Fresenius Kabi. Infants with congenital or acquired gastrointestinal abnormalities requiring surgery commonly need a period of parenteral nutrition following the operation. Parenteral nutrition is, however, associated with a range of complications including an increased risk of infection, an impaired immune response and liver damage. Currently 1000 infants in UK with surgical conditions receive parenteral nutrition every year, of which 15% will develop sepsis and/or liver function complications. "We have a

long-standing interest in the amino acid glutamine and its beneficial effects on the liver and on the outcome from sepsis" says Prof Pierro. Laboratory work led by Dr Eaton in the Surgery Unit shows that glutamine supplementation prevents liver damage in neonatal sepsis. In addition Prof Pierro and Dr Nigel Klein (Immunobiology Unit) have discovered that longer surgical infants are on intravenous feeding the more their immune function is impaired, leading to increased risk of infection. While there is some evidence from adults that glutamine supplementation works, a recent Cochrane review recommended that a large randomised controlled trial was needed to determine whether glutamine enhances gut integrity and reduces sepsis in infants. "We had already started planning this trial before the Cochrane review was published" says Prof Pierro. "The basic science combined with clinical observations had already provided the scientific basis of this study. The trial is a good example of the benefits of the links between ICH and GOS". "As a biochemist, it is exciting to have the



Agostino Pierro (left) and Simon Eaton

opportunity of testing the clinical benefit in babies of observations made in the laboratory" adds Dr Eaton.

The study will involve 250 infants in total from 12 centres. Infants will be randomised to receive glutamine or not in their intravenous feeding. The study will look at a range of outcomes including infection, intestinal function, duration of parenteral nutrition and hospital stay. The study has multidisciplinary input, with colleagues from paediatric surgery, pharmacy, immunology, nutrition and epidemiology all involved. "If glutamine is effective in these surgical infants, the next step would be to determine its benefit in other patients such as premature neonates,

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In the News...

A mutation in a single family has identified a gene significant in speech. Professor Faraneh Vargha-Khadem led the team dealing with the family and the landmark paper in *Nature* was a collaboration with the Wellcome Trust Centre for Human Genetics, Oxford. The paper was also covered in *Science* and *Nature Neuroscience*. Large pieces ran in the *New York Times* and *Washington Post*, and Professor Vargha-Khadem was also interviewed by journalists from Germany, France and Sweden. In the UK, the best coverage was in the *Observer*, but there were also stories in the *Guardian*, *Independent*, *Telegraph*, *Times*, and *Express*. Stories ran on BBC Online and Reuters.

The prospect of gene therapy for X-SCID, and the formal opening of the Jeans for Genes funded laboratory, was covered in the *Telegraph* and *Standard*. Dr Adrian Thrasher was interviewed on Channel Four News and London Today. There is considerable media interest in the prospect of actual clinical success for gene therapy.

Dr Helen Bedford was interviewed for GMTV, ITN, Channel Five and Radio Four *You and Yours* over a review of evidence for the safety of MMR. The story was covered by most of the newspapers. Lowest marks to the Daily Mail which headed a report on the review "More confusion for parents", muddying the findings.

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ICH researcher wins major 'public understanding' award

Dr Mark Lythgoe has just been awarded the BA's prestigious Dorothy Hodgkin Award Lecture. Mark will give the keynote 'Science and Society' lecture at the BA's Festival of Science in September next year, where he will talk about his ongoing 'sci-art' work. Mark is based in the Radiology and Physics Unit where he works on applying neuroimaging to research into stroke and brain damage.

Mark was nominated for the award by Sian Ede, art director at the Gulbenkian Foundation, who has an established track record in promoting science-art collaborations. She was on the panel that awarded Mark a Wellcome Trust Sci-Art award last year. In her nomination statement, Ms Ede described Mark as "an eloquent, compassionate and amusing speaker who is a highly respected neurological scientist".

Mark admits to being "shocked and amazed" to have been given the award. "I am absolutely delighted that this prestigious scientific community have recognised sci-art in this way. I think it will open a door to a radical and different way of furthering the public understanding of science." In his lecture, Mark will discuss and show clips from his ongoing collaboration with film director Andrew Kötting *Mapping*

Perception which focuses on Andrew's 13-year-old daughter Eden who has Joubert's syndrome. The project takes a look at the world through her eyes by combining clinical, genetic and neuroscience research with footage of Eden's childhood.

Mark has had a number of exhibitions in galleries around the UK over the past few years. "I believe sci-art is important to both the artistic and the scientific communities" he says.

The BA is a Nationwide organisation dedicated to the communication and appreciation of science. It's annual Festival of Science is one of the UK's biggest science events. For further information about the BA visit their website at www.the-ba.net.



Mark in front of one of the artworks from his joint art exhibition *Chimera* shown at the ICH in 1999.

News in brief...

The new ICH Director of Administration will be Dr Barbara Pittam who will succeed Shane O'Brien from 1st January 2002. Welcoming the appointment, the Dean said "Barbara has been the Administrator of the UCL Anatomy Department (the largest in UCL) for the last eleven years and is a highly talented and experienced administrator".

This month sees two sets of **Inaugural Symposia** given by four new professors. See page 2 for details.

The **Science Open Day/Poster Competition** will be held on November 28th – see page 7.

SIGN Trial in neonatal surgery

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children with sepsis and children undergoing chemotherapy" says Prof Pierro.

Another benefit of the study is a planned national centre for randomised controlled trials in paediatric surgery. Prof Pierro, Prof Spitz and Dr Eaton are already collaborating with Dr Carol Dezateux and Dr Angie Wade (Paediatric Epidemiology and Biostatistics) on two other trials in surgery and they hope to gain support for further trials. The Centre would aim to facilitate trial co-ordination and share expertise.

"There are so many questions in paediatric surgery that can only be answered by multicentre randomised controlled trials that we feel the time is right for such a centre" comments Prof Pierro.

CRN shares in £1.3 million for 'innovation hubs'

The UCL Clinical Research Network (CRN) has just been successful in a bid for funding from the Department of Trade and Industry's Public Sector Research Exploitation (PSRE) Fund. The funding will enable the CRN to create an expert organisation – the North Central London Innovation Hub – to help NHS Trusts exploit their intellectual property. The CRN bid was one of four co-ordinated London bids that have been awarded £1.3 million. London will have four hubs, each serving the distinct and different needs of its partner organisations, but working within a common framework.

The CRN bid recognised that some of the partner NHS Trusts already have established IP management arrangements with commercial and university technical transfer organisations while others have nothing. The NCLIH aims to add value and fill the gaps by providing a menu of services that organisations can access according to their needs. Services will include proactively increasing IP awareness, searching out innovations, mentoring people with ideas through the process to protection, and

providing training seminars and technology audits. NCLIH will be proactive in identifying and exploiting IP both from patient service and R&D activities, and will provide its services to staff at all levels across its partner Trusts.

The CRN bid was co-ordinated by Dr Vicki Latter, the CRN Manager. Commenting on the success of the bid, she says "This is a first for the CRN! The DTI Funding is going to be supplemented by the NHS and the London Development Agency, totalling in excess of £900k. This is an exciting opportunity to help CRN NHS Trusts with their IP and will include financial assistance with market research and patenting. We look forward to future successful grant applications in other areas such as the Department of Health Supercharged Priorities.

The NCLIH is expected to be up and running by January 2002. In the meantime, please contact the R&D Office for information about IP and/or if you think you have an idea that may be worth commercialising.